

REMARKS

Entry of the foregoing and reconsideration of the subject application are respectfully requested in light of the amendments above and the comments which follow.

As an initial matter, Applicants express gratitude to Examiner Fridie for the courtesies extended Applicants' attorney during the recent interview of January 12, 2009. During the interview, the Examiner explained his interpretation of Applicants claims and the *Rydberg* reference. Specifically, the Examiner explained what portions of the connecting surface of *Rydberg* he believed corresponded to the claim elements. The claim amendments above are in accordance with the discussion over the differences between *Rydberg* and Applicants invention.

Claims 1-19 were pending in this application.

In this response, claims 3-7 and 9-19 are amended, claims 1, 2, and 8 are canceled and claims 20-27 are added. Thus, claims 3-7 and 9-27 are pending.

Support for the foregoing amendments can be found, for example, in at least the following locations in the original disclosure: the original claims, Figures 4 and 5, and the specification, page 3, lines 27-30 and page 4, line 16 – page 5, line 25.

Entry of the forgoing is appropriate pursuant to 37 C.F.R. § 1.116 for at least the following reasons. The amendments raise no new issues that would necessitate further search and/or substantive reexamination and presents claims that, in conjunction with the below remarks, are allowable.

REJECTIONS UNDER 35 U.S.C. § 102

Claims 1-3 and 8 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,146,060 to Rydberg et al. (hereafter “*Rydberg*”) for the reasons presented at page 2 of the Official Action. Claims 1, 2, and 8 have been canceled rendering the rejection moot, but *Rydberg* is discussed below with regard to the new independent claims 20, 21, and 25.

To establish a *prima facie* case of anticipation, a single prior art reference must teach each and every element of the claimed invention, either explicitly or inherently. Claims 20, 21, and 25 each recite that the connecting surface includes three surface fields where the first and third surface fields each contain parallel first ridges that are aligned in extension of each other, and each first ridge includes a crest that is uninterrupted from an edge of the insert seat to the second surface field. *Rydberg* fails to disclose at least the following:

- 1) three surface fields;
- 2) that the third surface field contains parallel first ridges that are aligned in extension of the first ridges in the first surface field; and
- 3) that each first ridge includes a crest that is uninterrupted from an edge of the connecting surface to the second surface field.

Rydberg discloses only two surface fields defined as first and second rows of grooves 16A and 16B, with each groove row covering substantially half the front surface 14. *See, e.g.*, col. 4, ll. 34-38. The reference character (P) in *Rydberg* does not define a separate surface field as alleged by the Examiner. Instead, reference character (P) refers to pyramid shaped projections formed when the two groove rows or surface fields intersect. *See, e.g.*, col. 5, ll. 5-10. Therefore, *Rydberg* only discloses two intersecting surface fields and not three surface fields as claimed by Applicant.

Further, *Rydberg* fails to disclose a third surface field containing parallel first ridges that are aligned in extension of the first ridges in the first surface field. The ridges in area 16B are perpendicular to the ridges in area 16A. Therefore, the ridges in the area 16B are not parallel first ridges in extension of the first ridges in the first area 16A, and thus do not meet the claimed feature.

Rydberg at least further fails to disclose that each first ridge includes a crest that is uninterrupted from an edge of the connecting surface to the second surface field. *Rydberg* only teaches one groove row (16A) that includes first ridges having a crest that is uninterrupted from an edge of the connecting surface to the second surface field. Any set of ridges on the opposite side of a transverse ridge from the first groove row 16A contain crests that necessarily are interrupted and are not uninterrupted as claimed.

For at least the above reasons, *Rydberg* fails to disclose each and every element of the independent claims 20, 22, and 26, and thus no *prima facie* case of anticipation has been established for those claims or any claim depending therefrom, including claims 3-7, 9-19, 21, 23-25, and 27.

REJECTIONS UNDER 35 U.S.C. § 103

Claims 4-19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Rydberg* for the reasons presented at page 3 of the Official Action.

Rydberg does not teach or suggest all of the claim limitations of each of the dependent claims 3-7, 9-19, 21, 23-25, and 27. As explained above, *Rydberg* does not teach all of the limitations of claims 20, 22, and 26. Furthermore, *Rydberg* does not teach or suggest all of the specific limitations in the dependent claims.

The Examiner has misinterpreted the passage from *Rydberg* quoted in the Office Action on page 3. This passage when read in context with the rest of *Rydberg* only teaches that the two sets of grooves while remaining perpendicular to each other can be placed at an angle in relation to the workpiece.

Claims 4, 16, and 18 recite that "a third type of serrations are formed in the form of a plurality of tops." *Rydberg* fails to describe this element. A teaching that two sets of grooves can be placed at an angle in relation to the workpiece provides no suggestion for modifying the connecting surface to include a third type of serrations in the form of a plurality of tops. The Examiner has also relied on *In re Japikse* for the notion that rearranging parts of an invention involves only routine skill in the art. However, claims 4, 16, and 18 add an additional part (not mere rearrangement of existing parts), so this legal precedent is not germane to obviousness of claim 4.

Claims 5-7, 17, and 19 recite that the crest of the transverse ridge or ridges be situated in another plane than the crests of the first ridges. *Rydberg* fails to describe this element. A teaching that two sets of grooves can be placed at an angle in relation to the workpiece provides no suggestion that the crests of the transverse ridges should be in a different plane than the crests of the first ridges. *Rydberg* is silent to the height of each crest, and all of the figures in *Rydberg* appear to show all of the crests in the same plane. Therefore, there is no suggestion in *Rydberg* that crests from the transverse ridges would be in a different plane than the crests of the first ridges. Here again, the Examiner has also relied on *In re Japikse* for the notion that rearranging parts of an invention involves only routine skill in the art. However, placing one set of ridges in a different plane from another set of ridges for a particular purpose is not merely rearranging parts. Furthermore, *In re Japikse* did not hold that every rearrangement of parts of an invention

involves only routine skill in the art. It merely held that there was no invention in shifting a starting switch to a different position on the device because the operation of the device was not modified. *See In re Japikse*, 86 USPQ 70, 73 (CCPA 1950). In contrast, placing some ridges in a separate plane than other ridges would modify the operation of the device because it would have different surfaces bearing the transverse forces than when the ridges are in the same plane.

Claims 9-15 recite limitations on the number of first ridges and transverse ridges present in the connecting surface. The Examiner has incorrectly equated these recitations to mere duplication of the essential working parts of a device. The ratio of the number of first ridges to the number of transverse ridges recited in claims 9-15 is not a question of mere duplication. This particular embodiment of the invention provides the connecting surface with more force-transferring flanks of ridges in the direction of the strongest cutting forces acting on the cutting insert. Therefore, the particularly claimed ratio is not a mere duplication of parts of a device, and is not obvious over the teachings of *Rydberg*.

Claims 21 and 27 are not obvious for the additional reason that they recite that the cutting tool includes a clamping member positioned wholly in the second surface field, and the cutting insert includes an opening or recess positioned wholly in the second surface field, respectively. *Rydberg* fails to disclose these additional limitations. Specifically, *Rydberg* discloses two surface fields intersecting at an opening or clamping member on the first surface 14, and thus the clamping member or opening are not positioned wholly in the second surface field as claimed.

Claims 23-25 also add additional limitations not taught in *Rydberg*. For example, *Rydberg* fails to disclose crests of the second transverse ridges in a second surface field that are uninterrupted from one edge of the insert seat to an opposing edge of the insert seat, as claimed in claim 23.

CONCLUSION

From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

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